

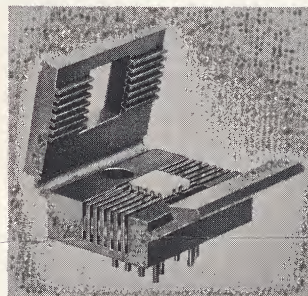
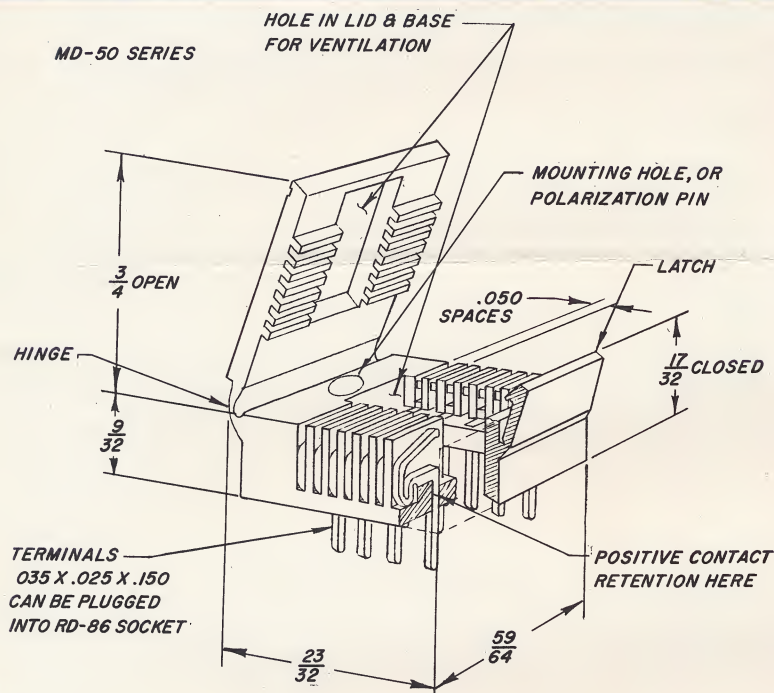
barnes

DATA SHEET

MD 50 SERIES SOCKETS FOR FLAT PACKAGE INTEGRATED CIRCUITS

BULLETIN NO. 155

Nov. 1, 1965



**A NEWLY DEVELOPED
SERIES OF SOCKETS
WITH INCREASED
RELIABILITY AND EASE
OF LOADING!**

Barnes MD sockets are available to fit all standard configurations and sizes of flat integrated circuit packages with peripheral leads, micro-mesa transistors and other similar components. Suitable for test, aging, breadboard and production mounting.

The new sockets feature wiping, gold plated contacts. Molded barriers between leads provide positive lead separation and increase speed and ease of loading.

Loading is simple -- the hinged latch is snapped forward and the hinged lid raised, opening the cavity for easy insertion or removal of the component. Ample tweezer clearance is provided. The component is dropped into place and positioned by the cavity. No stress or force is exerted on the body, leads, or seal. The socket is closed and latched -- bosses on the cover depress the leads against the wiping contacts. All forces are uniformly distributed on the leads, putting no force on the body/lead junction.

MD 50 Series Sockets are designed to withstand severe vibration, shock and other environmental test conditions.

SPECIFICATIONS:

CONTACTS: Wiping type, beryllium copper, precision stamped, heat treated to full spring temper after forming. Plating nickel and gold.

BODY DIELECTRIC: Filled polypropylene. For continuous operation to 125° centigrade. Good electrical characteristics.

SOCKET DESIGN: All models have the same base pin arrangement, and all fit the RD-86 mating connector base.

TYPICAL LIFE: Up to 50,000 uses; tested life of hinge and latch 200,000 flexes, rated for 5000 hours at 125° temperature cycling.

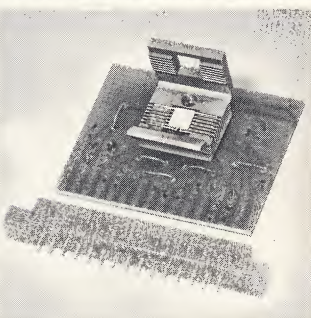
CONTACT RESISTANCE: Less than 0.012 ohms.

LEADS ACCEPTED: Flat leads up to 0.025" wide x 0.008" thick. Standard 0.050" spacing.

BASE PINS: Size is 0.025" x 0.035" x 0.150" long.

MOUNTING: Suitable for dip soldering to printed circuit, hand wiring, or miniature wire wrap.

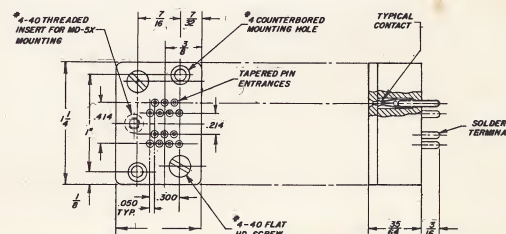
RD-86 MATING CONNECTOR: The RD-86 connector accepts all models. It is used in conjunction with the MD's when socket change is necessary in fixtures or racks to handle several styles, or when the MD sockets are used as carriers. Body is of filled nylon, contacts are Beryllium Copper, plated nickel and gold. Life in typical use is 50-100,000 insertions, has solder terminals, see above drawing. Good for 150° C continuous operation.



MDP SERIES SOCKET

The Barnes MDP Series are MD 50 sockets mounted on standard 15 lead (0.156 spacing) printed circuit board (6-10 material). General specifications are the same as the MD 50 series. Board size is 2" x 2-31/64" x 1/16".

PART NUMBER		FLAT PACK ACCEPTED	
WITH CONNECTOR	WITHOUT CONNECTOR	FLAT PACK DIMENSIONS	MAXIMUM NO. OF LEADS
MDP-551	MDP-552	1/4"x1/4"; 1/4"x3/8"	14
MDP-511	MDP-512	1/4"x 1/8"	14



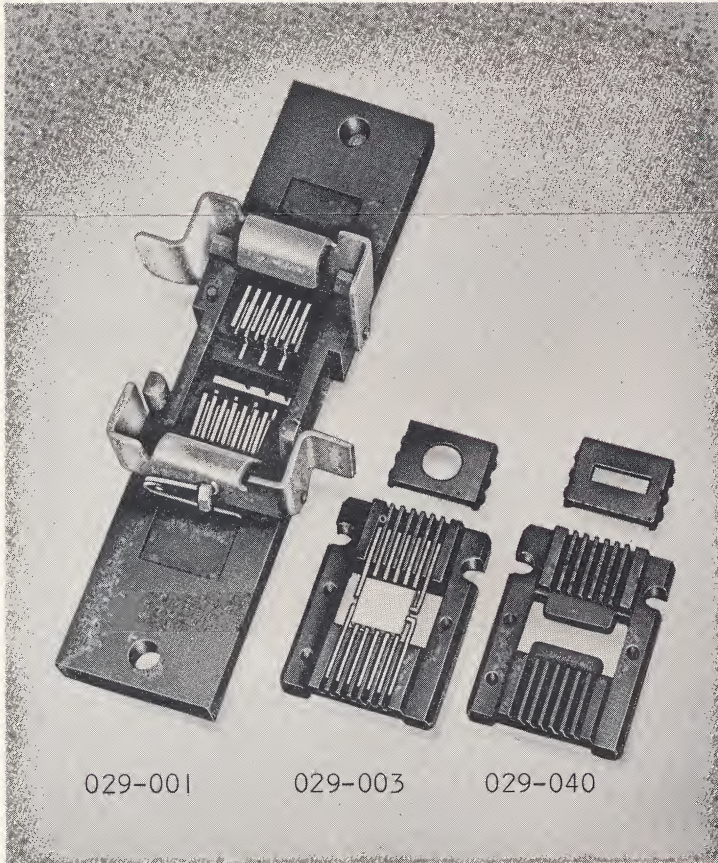
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DATA SHEET

029 SERIES

FLAT-PACK PROTECTIVE CARRIERS AND CONTACT BLOCKS

BULLETIN NO. 126 JANUARY 1, 1966



029-001

029-003

029-040

029 Series Flat-Pack Protective Carrier
and Contact Block

- SUBSTANTIALLY REDUCES HANDLING TIME
- LONG LIFE AND SUPERIOR EFFICIENCY
- CARRIER DOUBLES AS DISPOSABLE CONTAINER

PACKAGES ACCEPTED BY 029 CARRIERS

FLAT PACK DIMENSIONS	MIN. LEAD LENGTH	MAX. LEAD WIDTH	MAX. NUMBER OF LEADS
1/4" x 3/8"	0.1	0.025	14
1/4" x 1/4"	0.1	0.025	14
1/4" x 1/8"	0.15	0.025	14

A remarkable all new series of carriers and contactors which provide the fastest possible loading and insertion. Carriers will accept any standard flat package design and contactors can be produced to most other carrier sizes and configurations. Contactors available in either manual or semi-automatic models.

Besides the substantial increase of handling speed through simplicity of carrier loading and fast, one-hand, push-pull insertion into the contactor, the Quik/Sert carrier with its added protection and unusual economy can further reduce handling by serving as a disposable container for production, handling and shipping for the I.C. device. Once the device is loaded into the carrier for testing or aging, it need not be removed until delivery to the customer, decreasing the possibility of damage in handling.

EFFICIENCY: Designed to promote a high level of efficiency, both physically and mechanically. Stainless steel retaining springs on contact block permit split-second, one-hand, push-pull insertion or removal of carrier. Loading of the carrier is equally simple, fast, yet positive. The flat package is placed in the lead grooves, positioned automatically, and locked firmly in place by a separate snap-in clip. Device can be quickly and easily removed by snapping off the clip... with absolutely no damage to the leads. The device is held in place by the clip with no lock force on the body. Positive polarization is provided by the contactor. Contacts in the block provide uniform wiping contact. The Quik/Sert 029 series produces excellent electrical connections and provides a high level of all-around reliability, even under severe vibration and environmental cycling.

LONG LIFE: Because of its simplicity of design and quality of materials, the Quik/Sert 029 contactor has a worst case life of 50,000 insertions.

ECONOMY: Contactor and carrier are both competitive in price. The carrier, for example, is available in production quantities for less than 10¢ each, making its use as a disposable shipping container highly economical.

SPECIFICATIONS

CARRIER DESIGN: 1" x 3/4" x 5/32" over-all size. Available to fit any standard size I.C. flat package. Body dielectric is glass filled nylon for continuous operation from -65°C to 150°C. Device is automatically positioned in the cavity. A separate snap-in clip holds it in place.

CONTACT BLOCK DESIGN: Body dielectric is glass filled nylon for operation from -65°C to 150°C. Good electrical characteristics.

CONTACTS: Wiping type, beryllium copper, precision stamped, full spring temper, nickel and gold plated.

CONTACT RESISTANCE: Less than 0.010 ohms.

CONTACT FORCE: Contactor has a uniform 50 gram contact force on leads.

LIFE: Worst case -- 50,000 insertions.

CARRIER RETAINING SPRINGS: Stainless steel.

VIBRATION: The carrier contactor combination is suitable for environmental testing including vibration, shock and thermal cycling.